Choosing the Best:
Battalion Command and the Role of Experience

A Monograph
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Abstract

Choosing the Best: Battalion Command and the Role of Experience, by Major Thomas C. Graves, US Army, 60 pages.

Experiential theorists have studied the role that experience plays in decision making in a naturalistic environment. This monograph takes that evidence and applies it to tactical situations. Specifically, the monograph studies how experience is gained in the United States Army at the tactical level prior to an officer assuming battalion command.

The monograph includes an in depth study of how battalion command has increased in complexity since World War II. It shows a trend towards increasing complexity and difficulty throughout the last fifty years. Given this information, the monograph also studies how the Army has ensured that battalion commanders are prepared to assume their duties in this increasingly complex environment. The monograph attempts to determine whether an actual amount of time is required in key and critical jobs, rated as "branch qualifying" positions.

The conclusions that the author reaches are that there is no specified amount of time that can be placed on how long an officer should occupy key positions to prepare him for battalion command. In spite of this, the monograph shows that there has been no concerted effort to increase the amount of tactical experience that officers receive prior to battalion command. Studying all of the information on career guidance over the past thirty years, this monograph shows that career management and guidance has not fundamentally changed to maintain pace with the increasing complexity of battalion command.

The monograph ends with recommending that the career field designation board, currently used in the present model for officer career development, be executed at the fifth year in service, versus the eleventh year in service. This would allow officers to maintain a tactical focus for their entire career, leading up to the time that the officer assumes command of a battalion.

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I. Introduction

In January of 1968, the North Vietnamese Army (NVA), in conjunction with the Viet Cong Communist Insurgency troops, conducted a major campaign designed to end the Vietnam War by combining a countrywide offensive with a general uprising by the people of South Vietnam. One of the objectives of the campaign was the capture of the Saigon civilian airport known as Tan Son Nhut Airbase. This airbase was considered critical because it was the major port of debarkation and a logistics center for the United States military forces in Vietnam.[i] It was also largely symbolic of the US war effort in Vietnam and would therefore complement the political objectives of the North Vietnamese by convincing the US government that the war was unwinnable. After NVA troops had assaulted the airbase, Lieutenant Colonel Glenn K. Otis, the commander of the 3rd Squadron, 4th Cavalry, was ordered to counterattack and destroy the enemy forces at the airport. Lieutenant Colonel Otis quickly conducted an estimate of the situation and then ordered his C Troop to mount a counterattack at 9:00 P.M. on January 30, 1968. C Troop began a twenty-five kilometer roadmarch that was guided by Lieutenant Colonel Otis, dropping flares from his command and control helicopter. C Troop quickly assaulted the airbase and trapped a group of 100 NVA soldiers inside the perimeter fence, separating them from the remainder of the NVA Regiment outside of the fence. After a lengthy firefight, C Troop was running low on ammunition and supplies and also needed reinforcements to prevent being over-run by the enemy. Lieutenant Colonel Otis reinforced C Troop with a platoon inserted by helicopter, which was directed to counterattack on the left flank of C Troop. This action bought the Squadron Commander time to order B Troop to conduct a forty-five kilometer roadmarch in order to destroy the

remainder of the enemy regiment. B Troop completed this movement in forty-five minutes and counter-attacked into the flank of the enemy, completing the destruction of the NVA Regiment and securing Tan Son Nhut Airbase for the US military.[ii] LTC Otis' leadership and courage were recognized by his soldiers and superiors and resulted in him being awarded the Distinguished Service Cross (the nation's second highest award for valor) for heroism in combat.

Up to that time, Lieutenant Colonel Otis' career had been representative of many of the officers of his year group. Lieutenant Colonel Otis graduated from the United States Military Academy at West Point, New York in 1953 and proceeded to command two companies, an infantry company at Fort Carson, Colorado and an armor company in Europe. He also served as a Squadron operations officer and Executive Officer for the 1st Squadron, 9th Cavalry in Korea in 1963. His total amount of time spent as a company commander was nineteen months. His time spent in the 1st Squadron, 9th Cavalry was twelve months. [iii] Both of these jobs provided the main element of his tactical experience and served to prepare him for battalion command.

This leads to an interesting question. How much tactical experience does an officer need in order to successfully command at the battalion level? More importantly for officers in the Army of the new millennium, do the Army's infantry and armor battalion commanders have the requisite experience level to meet the demands of the future? This is the main research question that this monograph researches and answers. The current guidance for officer development from AR 600-3 indicates that an officer must have twelve to eighteen months as a company commander to be "qualified" for promotion to Major. That same officer must further have at least twelve months of time

as a battalion executive officer or battalion operations officer to be qualified for subsequent promotion to Lieutenant Colonel and therefore, eligible to compete for selection to battalion command. Do the requisite times in these critical billets provide the necessary tactical experience base and expertise for a Lieutenant Colonel leading an infantry or armor battalion in the Army of the Twenty-first Century?

The Role of Experience

Intuitively, one would come to the conclusion that experience must play some role in the development of the skills needed to lead a complex organization such as an infantry or armor battalion. This belief is substantiated by a number of studies and writings on the role of experience in decision making and military operations.

Decision making theory gives credence to the belief that experience matters. Experience and expertise are largely the subject of a number of studies conducted by Gary Klein and enumerated in his book, *Sources of Power*. Klein begins his studies by looking at the role of firefighters in a "naturalistic decision making setting," defined as high stakes decisions made rapidly by experienced decision-makers. He deliberately chooses to study experienced decision-makers, because he "sees experience as a basis for sources of power that we want to understand."[iv] To Klein, experience provides a set of patterns that decision-makers can use to assess situations. This provides the decision-maker with intuition, which Klein defines as "the use of experience to recognize key patterns that indicate the dynamics of the situation."[v] Without experience, key decision-makers would not recognize patterns that would lend themselves to ready solutions. The ability to see patterns is the key to making decisions in a naturalistic setting; the type of setting that a commander could expect to encounter on the battlefield.

Other leadership theorists support Klein's assertion that experience is essential to leading large organizations. For example, Peter Senge supports this assertion in his discussion of "systems archetypes." Senge believes that system archetypes are "patterns of structure that recur again and again."[vi] The experience of the manager allows him to recognize which system archetype is occurring in his organization, and then adjust his leadership style accordingly. In Senge's organizations, a manager who "learns to recognize more and more of these archetypes, [will] see more and more places where there is leverage in facing difficult challenges, and [will] explain these opportunities to others."[vii] Again, the ability to recognize patterns is critical to a leader of an organization in times of crisis. The leader's ability to understand what is happening around him is a function of what he has experienced in the past.

The role of experience is especially critical for military officers conducting tactical operations. The experience level of the commander has been a constant source of concern and study in all forms of warfare. Carl Von Clausewitz first recognized the role of experience in developing military genius, in that experience allows a commander to visualize the terrain. One of the elements of Clausewitz' genius is a sense of locality or understanding of the effects of terrain on operations. Clausewitz describes the genius studying terrain as one who perceives "partly by the naked eye and partly by the mind, which fills the gaps with guesswork based on learning and experience..."[viii] Clausewitz further describes the role of experience as allowing the commander to "see" situations that others are unable to grasp. Clausewitz' belief in the importance of experience led him to assert that commanders must trust experience implicitly, stating:

> The commander must trust his judgement and stand like a rock on which the waves [reports that turn out to be lies exaggerations or errors] break in vain. It

> is not an easy thing to do. If he does not have a buoyant disposition, if experience of war has not trained him and matured his judgment, he had better make it a rule to suppress his personal convictions and give his hopes and not his fears the benefit of the doubt.[ix]

Likewise, Baron Antoine H. Jomini understood the link between a commander's ability and his experience level. Jomini likens an inexperienced commander to a civilian who may be intellectually bright but is unable to apply his intellect to different situations. In his book, *The Art of War*, Jomini describes the role that inexperience in military operations has on commander's mistakes by saying that mistakes spring from intelligent men "who are simply learned men without a natural talent for war, and who have not acquired that practical *coup-d'oeil* (italics added) which is imparted by long experience in the direction of military operations."[x]

Another example of how military scholars evaluate the role of experience can be seen in John English's book, *On Infantry*. In his discussion of the US Army in World War II, he points to an observation made by General Marshall that junior officers didn't have the requisite experience to lead small units into combat. Marshall relates this lack of experience to a lack of confidence in small unit leader's tactical abilities.[xi]

The role of experience has even been investigated in present day publications, to include theses and monographs at the Command and General Staff College. One of the best studies of the relationship of tactical experience to confidence in decision making was conducted by Major Gregory D. Reilly, as his thesis for his Masters in Military Arts and Science at the Command and General Staff College. Major Reilly conducted a survey of eighty-eight majors of infantry and armor to determine whether tactical experience had any relationship to the confidence one had in making tactical decisions.

Based on his survey, Major Reilly determined that tactical experience, as measured by the amount of time an officer spent in a critical job, contributed to the officer's confidence in combat tactical decision making.[xii]

How the Army Defines Experience

Having asserted that experience is important to developing leaders who can make good decisions in naturalistic environments, the next step is to determine exactly what is meant by experience. For the US Army, that question is answered in its landmark publication on officer development, *DA Pamphlet 600-3, Commissioned Officer Development and Career Management. DA Pam 600-3* specifies what the Army leadership considers to be important jobs in the development of the skills necessary for further advancement. *DA Pam 600-3* acknowledges that all assignments that an officer holds in his career add to the development of that officer. However, *DA Pam 600-3* also acknowledges a special class of assignments that shows a "mastery of skills, knowledge, and attributes expected of an officer for his or her grade in a specific branch [of the Army]."[xiii] These assignments are known as "branch qualification." The pamphlet goes on to say that, "culture and tradition clearly define branch qualification for captains to be . . . successful company level command."[xiv] The infantry branch further makes the connection between assignments and experience by saying

> Officers must possess expert knowledge of infantry, combined arms and infantry support and coordination principles. This knowledge includes practical experience in tactics, combined arms operations, and the employment of direct and indirect fire weapons systems.[xv]

This experience is gained by completion of a company command of at least eighteen months (plus or minus six months) along with other assignments. Infantry branch further

emphasizes the link between experience and assignments by stating "this experience concentrates on critical tasks that all company grade officers perform . . . to survive on the battlefield."[xvi]

Likewise, the same is true for branch qualification at the Major level. *DA PAM 600-3* identifies branch qualification when an officer is in his Majority by stating "culture and tradition recognize key staff assignments at division, brigade, and battalion level to best prepare majors for leadership positions in the senior grades."[xvii] This is further emphasized by infantry branch in stating "the professional development objective for an infantry major is to continue to gain experience to enhance [his] warfighting capability...To do this, infantry officers . . . should aggressively seek assignments as battalion executive officers, battalion operations officers and brigade XO/S3."[xviii] Again, the link between assignments and experience is defined for the officer by the most important document controlling a US Army officer's career. In all cases, the armor branch uses almost identical language when describing the role of branch qualification and experience in the armor community.[xix]

In both the captain's and major's cases, the Infantry and Armor branches recognize that there are other jobs that can contribute to the tactical development of infantry and armor officers. These extra positions include service as an instructor at the Infantry School, duty as an Observer/Controller at a combat training center, and service in an infantry position in support of the National Guard.[xx] These positions are identified by Major Reilly as "active experimentation" positions that allow an officer to gain tactical experience, but are not directly involved in the battalion level decision making process.[xxi]

The Goals of this Monograph

As stated earlier, this monograph explores the question of whether the Army's infantry and armor battalion commanders have the requisite experience level to meet the demands of the new millennium's missions. This monograph examines the role of complexity in battalion command and whether complexity has increased or decreased since 1940 to determine whether there is an identifiable pattern or trend that may predict the future. This monograph also explores the changes in officer career management policy over time to determine if there is a pattern that can be identified. The monograph attempts to determine whether a minimum amount of time can be specified for branch qualifying positions. If it is determined that changes to the officer professional management system are necessary, this monograph recommends those changes and what the related impact may be to future development of Army officers.

II. Complexity of Command

Webster's defines complexity as "the quality or state of a whole made up of complicated or interrelated parts."[xxii] This definition has been further delineated by other sources of complexity theory. Specifically, Stephen Wolfram indicates that complexity arises from the number of ways that different elements within an organization or organism interact with each other.[xxiii] Basically, in order to discern whether an organization has increased or decreased in complexity requires a determination of the how the individual components of the organization have become more complicated and complex. In order to determine this in the context of battalion command, the focus must be on how command and control have increased in complexity.

Studying the functions of command in relation to complexity is important, if only because a battalion commander uses the systems and organization of command to bring combat power to bear on an enemy. A battalion commander cannot possibly shoot every weapon, drive every tank, and load every mortar by himself. Instead, the art and science of command enable him to accomplish this by organizing his unit into a cohesive element with a common aim. This connection between the functions of command and complexity has been established by a number of different authors. Martin Van Crevald makes the connection by stating that "the increase in the demands made on command systems is due to the greatly enhanced complexity . . . of modern armed forces."[xxiv] Likewise, Shimon Naveh understands the role of complexity in command when discussing the effects that mass armies have on command and control systems. Indeed, he states that there are "enormous complexities of command and control posed by the operation [of command]."[xxv] The next task is then to define what makes up those complexities of command.

Martin Van Crevald developed a list of the different elements of command and control. His list included:

> (a) the increased demands made on command systems by present day warfare, (b) technological developments that have multiplied the means at the disposal of command systems; (c) changes in the nature of the command process resulting from the interaction of factors (a) and (b); (d) the appearance of new weapons systems that, when coupled with structural changes inside command systems themselves have increased the vulnerability of command systems; and (e) the rise of costs, caused by factors (a) through (d).[xxvi]

When BDM Federal, Incorporated, a defense contractor, conducted a study of command in December 1998 for the US Army Research Institute, they classified the elements that constituted command and control at the battalion level as consisting of the "Wenzel-

Christ factors" of task characteristics, organizational structure, complexity of environment, technology, individual characteristics, unit continuity, and external organizations.[xxvii] The elements of task characteristics, organizational structure, and complexity of environment all directly relate to Van Crevald's increased demands on command and control structures. The element of technology is also found in both of the references.

Although it is beyond the scope of this monograph to conduct a detailed study of the increase in the complexity of command, studying the increase in complexity of the four sub-components listed above provides a general feel for how the overall systems of command and control in infantry and armor battalions have become more complex. The amount of experience required in an organization is directly proportional to the amount of complexity present. As battalion command systems become more complex, it logically follows that battalion commanders need more tactical experience to account for the increase in complexity. This monograph begins the study of the increase in complexity with a detailed look at the changes in doctrine, organization, equipment, and missions of infantry battalions.

Infantry Battalions Since 1940

On September 1st, 1939, Hitler's panzer divisions rolled into Poland, plunging the world into World War II. The Blitzkrieg tactics used by the German Wehrmacht signaled a significant change in warfare with the advent of mechanization to the battlefield. In response, President Roosevelt raised the strength of the US Army to 227,000 soldiers.[xxviii] The accompanying field manual that explained the method of fighting with mechanized forces was published as *FM 7-20: The Infantry Battalion*, in October 1940. Subsequent

versions of this manual were also published in 1942 and 1944. While each version of the manual specified minor changes to standard infantry doctrine, overall there were few changes to the overall concept of warfare. Under this doctrine, the standard infantry battalion was set with three rifle companies, a heavy weapons company, and a headquarters company.[xxix] With this organization, battalion command was a fairly simple process. The battalion was organized to fight as a part of its parent infantry regiment, with the regimental commander recognized as the commander who "usually motivates the action of a varying allotment of weapons of supporting arms, particularly artillery."[xxx] Although the Army recognized that tanks and infantry might work together on the battlefield, there was no attempt to place a clear doctrine on how that linkage would be completed. This method of warfighting would be little changed until the development of the Pentomic division in the mid 1950's. Although the advent of the use of the term "Task Force" was included in the 1950 version of the manual, the basic structure and organization of the infantry battalion remained unchanged. [xxxi]

After the Korean War and during the Eisenhower Administration, the US Army struggled to redefine itself as a relevant force on the nuclear battlefield. The solution to this dilemma was the advent of the Pentomic division, organized around a battle group formation. Each battle group in this new Army consisted of five companies of five platoons each and was commanded by a Colonel.[xxxii] This formation eliminated the traditional battalion and with it the need for an updated version of *FM 7-20*. When President Kennedy was inaugurated in 1961, the Army discarded the Pentomic Division structure and returned to a more traditional tactical structure. The new version of *FM 7-20* recognized this reorganization when it was published on January 16, 1962. The

battalion was now part of a larger brigade structure, with the brigade having the ability to tailor itself for specific missions. With this version of the field manual, the infantry battalion became a much more tactically viable force that could rapidly task organize and operate independently when required.[xxxiii] This was the manual that laid the foundations for the Army that would eventually be employed in the Republic of Vietnam. The May 1965 version of *FM 7-20* essentially did not change the organization of the battalion or its missions, except to tone down the nuclear battlefield rhetoric found in the 1962 version.[xxxiv]

In April 1965, President Lyndon Johnson ordered US Marines and US Army forces to intervene in a rebellion in the Dominican Republic. This intervention was designed to stem the flow of communism in Latin America and became the cornerstone of the "Johnson Doctrine" that would involve the country in Vietnam.[xxxv] Then Chief of Staff of the US Army, General Harold K. Johnson, coined the term "stability operations" in 1964 to describe operations (such as the intervention in the Dominican Republic) designed to "maintain the status quo . . . to establish a climate of order in which political, psychological, economic, sociological and other forces can work in a peaceful environment" in other nations.[xxxvi] The doctrine of stability operations eventually made it into the next version of *FM 7-20* published in December 1969. This significant change to the infantry battalion recognized that in addition to general war (both nuclear and non-nuclear), there were other forms of warfare including limited war and cold war. Finally, it dictated that the battalion commander must prepare himself for other roles to include: advisory assistance, truce enforcement, peacekeeping missions, international police actions, show of force missions, and riot control, as well as other missions in support of

countries friendly to the United States.[xxxvii] While the basic tenure of the manual didn't change (it was still focused on basic combat skills), the addition of chapters entitled "Stability Operations" and "Unconventional Warfare and Cold War Operations" emphasized the infantry's role in conflicts such as Vietnam and the Dominican Republic.[xxxviii]

With the conclusion of the Vietnam War, the US Army was looking for an opportunity to rebuild itself from the devastating effects that war had on morale, leadership, and organization of the Army. The Army found its source of catharsis in the publication of the capstone manual *FM 100-5: Operations* in 1976. This manual, published under the guidance of General William E. DePuy, developed the concept of the "Active Defense," a method of warfighting involving a scientific approach to arranging combat power on the battlefield to destroy forces of the Soviet Union.[xxxix] In response to the changes wrought from the new capstone manual, the infantry community published an updated version of *FM 7-20* on 3 April 1978. This manual was significant in that it only dealt with light infantry, airborne infantry, airmobile infantry, and the doctrine for employment of the newly-formed Ranger battalions. The armor community published the doctrine regarding the employment of the mechanized infantry battalion in the combined manual *FM 71-2: The Tank and Mechanized Infantry Battalion Task Force* (this manual will be discussed in detail in the following section on the development of armor doctrine and increasing complexity). In this updated version of *FM 7-20*, the infantry battalion commander was relieved of the stability and support missions required in the May 1965 version. However, the duties of the battalion commander became much more difficult with the requirement to arrange forces on the battlefield using a scientific

method of applying combat power. This manual integrated threat doctrine and required battalion commanders and staffs to evaluate opposing forces using a precise methodology relating weapons capabilities and ranges to terrain.[xl] In terms of organization, the battalion was integrated with anti-tank guided missile systems (such as the TOW and Dragon missile systems). These weapon systems forced the infantry battalion commander to expand his concept of battlespace to ranges of up to 4 kilometers. Other changes to the organization of the battalion included the habitual attachment of a Vulcan air defense platoon and a combat engineer platoon. The latter was to be used in the preparation of the battalion defense and in breaching obstacles with the task force responsible for the task of conducting combined arms breaching operations.[xli] This renewed emphasis on fighting Soviet threat forces allowed battalion commanders to focus on a primary mission, versus forcing battalion commanders to focus on a range of missions. However, that mission was much more complex and complicated than anything that they had dealt with up to this point in time.

While the Active Defense enabled the Army to focus on a specific mission and a specific threat, it didn't quite meet the requirement of providing an all-encompassing doctrine that allowed for an overwhelming defeat of Soviet forces. The element that was missing in the Active Defense, among others, was a recognition of the 2nd echelon Soviet forces and their role on the modern battlefield. This attempt to focus on 2nd echelon forces developed into the concept of AirLand Battle, published as formal doctrine in the 1982 version of *FM 100-5: Operations*.[xlii] With the publication of this capstone manual, the infantry community published another version of *FM 7-20* on 28 December 1984. This version would expand on the original concepts of the 1978 version and add the

battlefield framework of Deep Operations, Close Operations, and Rear Operations.[xliii] Again, the infantry battalion commander's concept of his battlespace was extended well beyond the range of the weapons that he employed to include a recognition of an area of interest, separate from his area of operations. The manual also laid down the requirement for battalions to be capable of rapid deployment anywhere in the world. These additional missions required the battalion commander to analyze any battlefield where he may find himself fighting, using the concept of METT-T (Mission, Enemy, Terrain, Troops Available, and Time).[xliv] Although METT-T was designed to provide a systematic way to evaluate the environment that a battalion could fight in, it also added another layer of complexity to the element of employment of the battalion. The AirLand Battle concept made a major contribution to the warfighting capability of the Army; however, it too was missing a major ingredient.

The 1986 version of *FM 100-5* and the corresponding 6 April 1992 version of *FM 7-20* would provide that ingredient. In that version of *FM 7-20*, the infantry community recognized the need to fight in many different environments at many different levels. Again the echoes of the 1965 version of *FM 7-20* could be heard in the new manual's description of high-intensity, mid-intensity, and low-intensity conflict. Along with the requirement to fight in a high-intensity conflict involving task organized task forces in an expanded battlespace with a rapid and fluid situation, the infantry battalion commander now was also required to prepare for low-intensity conflicts including: peacekeeping missions, counterinsurgency operations, combating terrorism, peacetime contingency operations (such as disaster relief, counterdrug operations, etc.), and other operations along the entire spectrum of warfare.[xlv] These requirements were manifested in

operations such as Operation Just Cause. During Just Cause, after completion of combat operations, many infantry battalions were required to conduct "nation-building" activities without a clear understanding or doctrine to guide their actions.[xlvi]

Employment of an infantry battalion in combat has become increasingly more complex and difficult due to the increase in the number and types of missions that battalions must perform, the changes to task organization, the employment of weapons with increased range, and the increase in a battalion's battlespace. The days of the World War II infantry battalion commander, who only had to concern himself with ensuring that his organic infantry battalion was at the right place to support the regimental commander, are long gone. However, despite this increase in the complexity of operations for infantry battalion commanders, the basic tools that he uses to command and control his battalion are unchanged since World War II. Essentially, the battalion commander of today still uses radio communications and acetate overlays to maintain situational awareness and communicate with his subordinates.[xlvii] As it is clear that the level of complexity has increased for today's infantry battalion commanders, it becomes necessary to evaluate the same elements for armor battalion commanders.

Armor Battalions Since 1940

Not surprisingly, the development of armor battalion doctrine closely parallels the development of infantry battalion doctrine. A version of the tank battalion manual was published in 1942, 1944, 1949, 1961, and 1966, before the transition to the tank and mechanized infantry battalion versions of 1977 and 1988 (with a "coordinating draft" published in 1984). While there are definite differences between the infantry and armor

versions of doctrine, it is still easy to envisage the growth of complexity for command and control of an armor battalion.

Like the 1940, 1942, 1944, and 1950 editions of *FM 7-20: The Infantry Battalion*, the 1942, 1944, and 1949 versions *of FM 17-33: The Armored Battalion, Light and Medium* maintained a trend of the armor battalion working within the confines of its parent regiment with minimal combined arms coordination. When the manual discussed infantry combined with tanks in battle, it defaulted to a mechanistic approach of infantry forming a base of fire to support the tank assault. The battalion commander's role in combining infantry with tanks in the attack was to simply give the infantry the base of fire mission and "fire control is left to the unit commander."[xlviii] In these manuals, the basic triangular regiment was used for armored regiments. The 1949 version began to recognize an increase in combined arms operations, but stopped short of using the infantry verbiage of "Task Force" to describe such operations. However, the edition described reinforced tank battalions as "consisting of tanks, armored infantry, and armored engineers . . . formed by taking armored infantry from infantry battalions and attaching them to tank battalions."[xlix] This definition came very close to describing the role of task forces as defined in the 1950 edition of *FM 7-20*.

At the end of the Pentomic Era, the armor community published its version of the new doctrine on 4 December 1961. Like its infantry counterpart, this manual discussed the nuclear battlefield and adds a Davy Crockett (a nuclear-capable, man-portable rocket system) section to the mortar platoon.[l] This manual also identified the use of task forces and task-organized units like the infantry manual of 1961.[li]

The manual published in 1966 (and subsequently reprinted later with two changes) looked remarkably similar to the infantry manual of 1969, with the exception that the armor manual did not discuss the range of stability operations, such as peacekeeping, riot control, etc.[lii] The manual did recognize the differences between general war, limited war, and cold war (to include stability operations); however, its section on stability operations was not nearly as explicit as the infantry manual's section.[liii]

The real change to the complexity of an armor battalion commander's duties occurred with the addition of the Active Defense and publication of *FM 71-2: The Tank and Mechanized Infantry Battalion Task Force* on 30 June 1977. This manual basically combined both the armor battalions and mechanized infantry battalions and identified no differences in their employment. The manual specified that task force organization was found in four types: "mech" heavy (a task force with more mechanized infantry companies than armor companies), tank heavy (a task force with more armor companies than infantry companies), balanced (an equal amount of armor and infantry companies) or pure (no mixture of armor or infantry companies in the task force).[liv] This manual also showed in chart form the differences between a standard mechanized infantry battalion organization and an armor battalion organization, emphasizing to the task force commander that he may be organized with elements from either organization in varying amounts. The major change to the standard organization of the armor battalion was the increase in tank companies from three to four. This four-company organization was mirrored in the mechanized infantry battalion, but also included the addition of an anti-tank company, consisting of twelve TOW missile systems.[lv] The concept that an armor

battalion commander (up until this point satisfied with having to only understand his own branch of the Army) was now required not only to understand the organization of his sister unit, but also to utilize many of the elements of his sister unit on a routine basis, obviously added a degree of complexity to his duties, as well as those of his staff.[lvi]

While the changes wrought in the 1977 version of *FM 71-2* were extensive, like its 1978 infantry counterpart manual, it required more sophistication in order to make it into a manual that was usable for warfighting. The 1988 version of *FM 71-2* (the precursor of this edition was a "coordinating draft" *FM 71-2J* published in 1984), introduced the concept of AirLand Battle along with the battlefield framework of deep, close, and rear operations. This manual also added time to the standard METT analysis and directed the use of an intelligence preparation of the battlefield (IPB) process in order to prepare a unit for combat operations. Other significant changes to the armor battalion organization included the addition of a chemical officer to the battalion staff and a tactical intelligence officer, subordinate to the battalion S2. The manual also increased the role of fire support to include employment of artillery delivered anti-tank and anti-personnel mines (FASCAM) and cannon launched guided projectiles (copperhead munitions). The manual also specified the use of the battlefield operating systems to describe and classify the differing missions of the task force.[lvii] The recognition that the battlefield now consisted of a series of systems (intelligence system, maneuver system, fire support system, air defense artillery system, mobility/counter-mobility/survivability system, combat service support system, and the command and control system) was also a recognition that the different elements that make up a task force were each, in their own right, very complex. The 1988 version of the manual also integrated the concepts of

heavy and light operations and includes a discussion of directed energy weapons (such as lasers, microwave radiation emitters, and particle beam generators).[lviii] While not published as an updated version of *FM 71-2*, the armor community did publish, on 17 August 1994, a lengthy change 1 to the manual that discusses the integration of special operating forces with armor units.[lix] This change also dropped the concept of AirLand Battle, but instead identified the tenets of Army operations to include "versatility." "Versatility" was defined as the "ability of tactical units to adapt to different missions and tasks, some of which may not be on the unit mission essential task list (METL)."[lx]

Like its infantry counterpart, a review of armor battalion doctrine from 1942 until the present reveals a steadily-increasing complexity to the organization and employment of a battalion. The standard triangular armor battalion of 1942 has almost no resemblance to the currently-organized battalion, either in how it was organized or in the variety of tasks that it can be expected to perform. Also, like the infantry battalion, the increase in weapons ranges and technology has forced present day battalion commanders to view the battlefield in increasing depth, time, and space. The application of combat power against an enemy on today's battlefield requires the understanding of several different (and sometimes conflicting) "systems" and also requires a system's approach to tactical thinking. Still, the primary tools for command and control that the battalion commander possesses are the frequency-modulated radio and a paper map with an acetate overlay. Although digital technology assists the battalion commander in command and control, especially in the form of global positioning system technology and increasing speed of fire support systems, the mind of the battalion commander is still the most important aspect in making the correct decisions in a timely manner.[lxi]

From the discussion of complexity in battalion command, it can be shown that battalion command is considerably more complex today than it was in the early 1940's for both armor and infantry battalion commanders. The logical conclusion that can be drawn from this is that this trend towards increasing complexity will only continue in the future. As weapons become even more complex and battalion battlespace expands in time and space, the ability of a battalion commander to command and control his battalions will become much more difficult. As the United States Army enters into peacekeeping operations in Kosovo and Bosnia, as well as maintaining a combat presence in Kuwait and the Sinai, the "versatility" factor, outlined in the tenets of Army operations become even more important. However, there is a belief that future technology will enable a battalion commander to have more access to information and thus limit the difficulty of the duties of command and control. This view on the helpfulness of future command and control systems is not supported by current research conducted on those systems. In a research project concerning the use of the Maneuver Control System (MCS), the current computer systems applied to the tactical command and control systems at battalion level and above, battalion officers overwhelmingly asserted that the computer systems made their duties more difficult.[lxii] Among the comments made was the fact that the computers added requirements for additional generators (requiring more maintenance capabilities) and additional personnel (including the training support necessary to ensure those personnel are proficient in the systems).[lxiii] As Martin Van Crevald so clearly recognized:

> Everything else being equal, a larger and more complex task will demand more information to carry it out. Conversely, when information is insufficient (or when it is not available on time, or when it is superabundant, or when it is wrong, all of which can be express in quantitative terms), a fall in the level of performance will

> automatically ensue. The history of command can thus be understood in terms of a race between the demand for information and the ability of command systems to meet it. That race is eternal; takes place within every military (and, indeed, nonmilitary) organization, at all levels and at all times.[lxiv]

The experience level of decision-makers (in the case of battalions, battalion commanders) and increasing complexity of command are inextricably linked with each other. As complexity increases, the need for battalion commanders with more tactical experience must also increase. The question now becomes: "How does the US Army professionally develop its officers in order to produce the most qualified and experienced battalion commanders possible?" In order to investigate this question, this monograph must begin by examining the career management requirements and policies for officers as outlined in *DA Pam 600-3*. This pamphlet explains the career paths that officers of both the armor and infantry branches can expect to take from the time that they are commissioned through the rank of Colonel, to include battalion command. This process begins with an examination of whether officer professional management has kept pace with the increasing complexity of warfare.

III. The Officer Professional Management System

On 1 October 1998, the US Army's Personnel Command (PERSCOM) rolled out a new system for officer management entitled the Officer Professional Management System XXI (OPMS XXI). This system was touted as the "first significant revision to the Officer Professional Management System since 1984."[lxv] The new system recognized that a change was necessary in order to develop officers to meet the future complexity of warfare in the 21st Century. The new system incorporated several major changes to the development of officers, to include creation of an "Officer Development System," the

need to "adopt a holistic, strategic human resource management (SHRM) approach to officer development and personnel management," and the creation of four career fields in which officers in the grade of Major would be designated and serve in for the remainder of their careers.[lxvi] This last change was a significant change concerning how officers would be managed and assigned to meet the needs of the Army.

With the creation of the four career fields, the Army recognized that warfare and systems within the Army had become increasingly complex and required a degree of specialization in order for officers to be prepared for the future. This specialization approach is summed up in *DA Pam 600-3*:

> Besides the obvious advancements in science and technology evident in the Army's warfighting equipment, the quantum increase in information and required decision making inherent in modern doctrine and warfare necessitate increased specialization within the officer corps. Complex and lethal weapons, joint and multinational doctrine and organizations, and a global political and economic connectivity require the utmost competence in the officer corps. Such skills are mastered through self-development, mentoring, a combination of civilian and military education programs and a series of challenging, developmental assignments.[lxvii]

However, despite this understanding of the increasing needs of specialization, the pamphlet also recognized that the new system runs counter to that belief. The true assignment patterns for the new system are better described when saying:

> The Career Field-based management concept is the heart of OPMS XXI. The basic premise is that officers can serve throughout their careers in a variety of assignments centered around their branch and functional areas. Multiple career patterns are possible under OPMS. One of the major objectives of OPMS XXI is to professionally develop officers in their designated branch and functional areas through the interactions of the individual, the proponent OPMD and the field commander. These interactions are embodied in the process of officer development.[lxviii]

Despite the best intentions of the new system, there have not been any significant changes to officer professional development from the early 1970's until the present time.

Despite the evidence of increasing complexity, the development of officers prior to battalion command has not significantly changed, and the emphasis on assignment variety has essentially remained the same. A review of the officer management systems and career advice to officers from the early 1970's shows how little the officer management system has truly changed. Furthermore, a review of current armor and infantry branch assignment policies, in effect, further degrades the professional development goals of the OPMS XXI system.

The 1 August 1970 version of *DA Pam 600-3* stated that "career planning assists in fulfilling the Army's obligation to the Nation by developing competent military leaders who are qualified to occupy positions of great responsibility in periods of peace and war."[lxix] This further emphasis on warfighting is stated in recognizing that the "Army exists in peacetime to prepare for victory in war, so Army officer's careers are guided to insure that each officer is properly trained so that he can perform effectively in time of war. It is toward this goal that all schooling, experience, assignments an promotions of the career officer are aimed."[lxx] The professional development objectives of this pamphlet outlined the importance of command assignments in developing officers to meet these goals. The pamphlet specified that "command and supervisor positions enjoy the highest prestige of all positions in the Army and therefore are the most sought after duty assignments."[lxxi] Except for the provision that duty as an advisor to a Vietnamese combat unit could substitute for command (this substitution only occurred during the Vietnam War, when advisory duty was considered dangerous and as difficult as actual command), command at company and battalion level was the pre-eminent objective of

development in this version of the pamphlet. To further emphasize the effect that successful command would have on a career, the pamphlet specified that:

> Successful completion of a tour of duty at a level of command such as company or battalion, or comparable supervisory level, coupled with other duty assignments in time of peace, should make the officer a potential commander at higher levels in time of emergency. The proven ability to command can influence many personnel actions, such as selection for high level military schooling, tours of duty in special key assignments, promotion, or other equally important personnel actions.[lxxii]

The method for achieving successful command is also specified in the career advice for each branch and specifically the career patterns associated with each branch. The career pattern roadmaps were designed to show "chronological pathways or ladders followed by officers from the time they are commissioned until they attain the highest position of responsibility commensurate with their capabilities."[lxxiii] The career advice spelled out for armor officers in this manual stated that company grade officers (lieutenant and captain) should be "given troop assignments including battalion staff and company command," while field grade officers should include "staff duty at brigade or regiment or division level."[lxxiv] The list of assignments provided in the roadmap for the armor officer show that at the company grade level, assignments should include: staff duty at battalion, regiment or brigade level; company/troop executive officer; platoon and company/troop command; Special Forces A Detachment Commander; training unit officer; maintenance officer; service school or ROTC instructor duty; and civilian component duty (National Guard, Reserve, etc.). The assignments recommended for field grade level development in the armor branch include: staff duty at brigade, regiment or division; service school instructor; training unit commander; civilian component duty; duty with Military Advisory and Assistance Groups (again the emphasis on advisory duty in Vietnam); and

"entrance into special career programs."[lxxv] Another key component of this manual is the lack of alternate specialties or functional areas under which an officer would serve. The manual did allow for an officer with certain advanced civil schooling to serve a "utilization tour" if desired, but the officer must ensure that his controlling branch understood his desires to serve that tour.[lxxvi]

The March 1974 version of *DA Pam 600-3* does little to change this career assignment pattern. This version, the first to be published under the newly named Officer Professional Development System, began by specifying the ideal promotion times for Army officers. This promotion system dictated that, ideally, lieutenant colonels would be promoted between their sixteenth and seventeenth year of commissioned service. This would translate equally to the promotion timeline of sixteen years, plus or minus one year. In this version of the manual, troop experience is again emphasized as necessary for development of officers. For armor officers, the career advice acknowledged that "troop command is the most challenging and rewarding [of assignments]."[lxxvii] The need to have armor officers command companies is further enhanced by stating that "a continuous goal will be to afford as many officers as possible the opportunity for company/troop command." The goals for the major phase remain the same, admonishing that "officers should seek troop assignments at division level or below."[lxxviii] A review of the career map for this version shows that armor captains should pursue assignments as company commander, instructor, battalion staff officer, and MAAG and Mission duty commander. Officers at the grade of major should pursue assignments as commanders of special forces units; brigade staff officers; division staff officers; HQDA, JCS, OSD staff duty; service school instructor; MAAG and Mission duty; and Reserve or National Guard

Advisor.[lxxix] It is important to note in each of these versions examined, while there is much emphasis on command and troop duty, neither version specifies how much command or time with troops that officers need to be "branch qualified." This version does begin the development of the dual track system where an officer chooses his basic branch and another "specialty" in which he can be assigned.[lxxx] This element of career management is maintained and later redesignated as a "functional area" up through the 1998 version of the pamphlet.

The version of *DA Pam 600-3* produced on 1 September 1977 changes very little in the development patterns of the officer prior to battalion command. In this version company command is again emphasized and the assignment roadmap for armor officers again shows the now familiar pattern of troop and company command, staff officers at battalion or higher, instructor duties (both at West Point, service schools, and ROTC), and advisory duty for National Guard and Reserve. This recommended roadmap also adds recruiting duty to the list of recommended positions.[lxxxi]

The version of *DA Pam 600-3*, published as a series of "updates" in the 1980's, began to specify the amount of time that commanders must have to meet "specific professional development objectives." While it looks very similar to signifying branch qualification, the use of the term "branch qualification" does not appear until the 1987 version of the Update. However, the specific development objectives specified for armor career officers at company level included duties as: battalion staff officer, battalion maintenance officer, company command, brigade and division staff experience, and positions as armor school/ROTC/USMA instructors. The armor development objectives for field grade officers include "duty as a battalion S3/XO or both, serving in a

department or directorate of the Armor School, staff experience at Brigade level and higher, and battalion command."[lxxxii] While this is the first version of a pamphlet that specified battalion S3 and XO time as important for the development of armor officers, it also specified for infantry officers that company command should last a "customary command tour of eighteen months (plus or minus six months)."[lxxxiii] However, despite these changes, the career roadmap for armor officers again listed the same types of recommended duties that are seen from the 1970s forward, signifying no significant changes to career progression for officers seeking battalion command.[lxxxiv]

On 1 October 1987, PERSCOM published the eleventh update to *DA Pam 600-3*, including the term "branch qualification" to specify important career development billets for the basic branches. In this version, branch qualification was defined as successful company command for eighteen months, plus or minus six months. There was no specific criteria for branch qualification for majors; however, the armor roadmap specified that battalion S3 and XO are critical billets to be filled between the twelfth and sixteenth years of service. In this roadmap, the recommended duties for company grade officer include: battalion and brigade staff, service school instructor, ROTC/USMA, Reserve Component duty, recruiting command, functional area utilization, NTC Observer/ Controller, and "nominative assignments."[lxxxv] Again, there were no significant changes to the officer professional management system nor any attempt to account for the ever-increasing complexity of command at battalion level.

The 1998 version of *DA Pam 600-3* can now be reviewed with respect to the past versions. A review of the career advice to armor officers again shows that branch qualification for armor officers at the captain level was company command for eighteen

months, plus or minus six months. Branch qualification is specified for armor majors as battalion or brigade XO or S3 for eighteen months, plus or minus six months. This specification for branch qualification for armor majors may seem like a significant change, but it translated what was originally a de facto policy to a de jure policy. This version of the pamphlet also specifies that after successful company command, captains can be assigned to:

> A full spectrum of assignments is possible. Armor officers may serve on TOE/TDA unit staffs. Typical non-troop assignments for captains after command include: Congressionally mandated AC/RC [reserve component] training support brigade; CTC trainer or observer/controller; service branch school instructor or staff; MACOM (Major Army Command] staff; USMA staff and faculty; US Army Recruiting Command; Reserve Officers' Training Corps [ROTC] instructor; or initial developmental assignment in their designated functional area.[lxxxvi]

This list of available assignments is familiar from earlier versions of the pamphlet dating back into the 1970s. The assignments for major and field grade positions also look extremely familiar:

> Other typical assignments for majors include brigade staff; AC/RC duty; CTC trainer; division, corps, Army, major Army command (MACOM) or HQDA (Headquarters, Department of the Army) staff; CGSC staff and faculty; service branch school instructor; USMA faculty or staff; or ROTC assistant professor of military science. armor majors will also serve in other branch/functional area generalist positions, such as IG, aide, speechwriter and special assistant to Army senior leaders. A joint assignment is essential for future career growth of an armor officer.[lxxxvii]

The significant change in this version of *DA Pam 600-3* is the acceptance of the Career Field Designation at the time of selection for major and the attempt to specify eighteen months of branch qualification for the rank of major. The manual also allows for command of a second company, with the intent of adding to the tactical experience level

of company grade officers. However, even with these changes, the assignment process has not significantly changed for armor officers.

The current Chief of Staff of the Army policy for second company commands outlines that:

> Authorized second commands are division HHCs and HHCs of heavy battalions. The criteria for serving in a second command limits a captain's total command time to twenty-four months (with twelve months in each command being the norm). Time on station [the amount of time that an officer serves at one assignment location] should be limited to thirty-six months.[lxxxviii]

While the pamphlet does specify that a captain can have more than one company command, the results of the above policy allow no more time in company command than is allowed for one company (eighteen months, plus or minus six months for a maximum total of twenty-four months).

The basic truth behind career management for officers from 1970 through 1997 is that not much has changed in the methods used to manage the careers of combat arms officers. Throughout this period, there has always been an emphasis on company command and time with troops, along with acknowledgement that most officers will spend time away from tactical jobs, learning the skills necessary for battalion command. Although the 1997 version of *DA Pam 600-3* was meant to significantly change the career patterns of officers prior to battalion command, in fact little was done to increase the tactical experience that armor and infantry officers receive prior to assuming battalion command.

IV. How Much is Enough?

As can be seen by the review of the OPMS system development, the Army has struggled through the years with defining how much time is necessary at the tactical level to develop officers for future battalion command. This struggle has resulted in a formula of branch qualifying time of eighteen months for company command and eighteen months for battalion S3 and XO. However, is this the correct amount of time needed for these critical billets? A review of past statistics illustrates how difficult it is to determine this set amount of time.

In the last battalion command selection board that met in October 1998 to select battalion commanders, a total of fifty-four armor branch lieutenant colonels and promotable majors were selected for battalion command. Those selected for battalion command were from the managed year groups of 1979 through 1984, with the majority (twenty-three) coming from year group 1982. All of the selectees were resident graduates of a military educational level–four program (defined as a Command and General Staff College or equivalent education), and eleven were graduates from the Advanced Military Studies Program, offered at the Command and General Staff College. The average amount of company command time for these officers was twenty-nine months. The average amount of field grade troop time (defined as the same pre-requisites for branch qualification: battalion or brigade S3 or XO) was twenty-seven months.[lxxxix] For the year groups of 1979 – 1984, the majority of company command time should have occurred between the fifth and eighth year of service or between 1984 and 1992. Likewise, the majority of branch qualifying time in the grade of major should

have occurred between the twelfth and sixteenth year of service, or between 1991 and when the board convened in October 1998. This translates to the fact that none of the officers selected for battalion command fell under the rules of the 1998 version of *DA Pam 600-3* for branch qualifying time as either company commanders or field grade officers. However, much more significant is the fact that on average, the officers exceeded the amount of time specified in the new version of the manual for these critical times.

This would indicate that the amount of time required to develop officers for battalion command should actually be more than the eighteen-month pre-requisite listed for branch qualifying time. However, that may not necessarily be true. A review of the careers of general officers on active duty in 1991 reveals the difficulty of the problem.

Officers who have achieved the rank of Brigadier General or higher are the perfect group for studying successful battalion command. It can be assumed that each of the officers was successful at battalion command, based on the sole fact that an unsuccessful battalion command would have resulted in the officers not being selected to the general officer ranks. With that knowledge, it is interesting to note the career patterns of all of the general officers that were on active duty in 1991. Of this population group, there were 173 general officers that served as battalion commanders for infantry or armor battalions. Also included in this study were the two general officers who command Special Forces battalions, since those officers generally had career patterns in the infantry as their basic branch, and the skills for a Special Forces battalion commander are very similar to those needed for a light infantry battalion commander. The total population of 175 could further be broken down into ten officers at the rank of General, twenty-three

officers at the rank of Lieutenant General, forty-five officers at the rank of Major General, and ninety-seven officers at the rank of Brigadier General. All of these officers were commissioned between the period of 1956 and 1968, and all of the officers had some combat experience in the Vietnam War.[xc] With this information, it is useful to take a detailed look at three years groups, 1958, 1963, and 1967. These three year groups were separated by nine years and included enough officers to make a detailed study.

In year group 1958 (determined by those general officers who were commissioned between 1 October 1957 and 1 October 1958), there were four Generals, three Lieutenant Generals, five Major Generals, and one Brigadier General. Among this group, the average number of company commands that the officers held was 1.61, for an average of 12.38 months. The median amount of time for company command was ten months. The average number of branch qualifying jobs as majors was 1.46, for an average of 8.76 months. The median amount of time was five months. On average, these officers were promoted to lieutenant colonel at the thirteenth year and first month of service and took battalion command at the fourteenth year and fourth month of service.[xci] This would have the officers promoted to lieutenant colonel in 1971 and assuming battalion command in 1972.

With year group 1963, the results are more varied. In year group 1963, there are a total of twenty-one officers broken down into four Major Generals and seventeen Brigadier Generals. Of this population, the average number of company commands was 2.04 for an average of 15.00 months. The median number of months of company command was also fifteen. For branch qualifying time as a major, the average number of jobs was 1.71, with an average time of 16.38 months. The median number of months for

branch qualifying time was thirteen months. On average, these officers were promoted to lieutenant colonel with thirteen years and seven months in service and assumed battalion command with fourteen years and ten months of service, which translates to 1976 and 1977, respectively.[xcii]

In year group 1967, there were nine officers all at the rank of Brigadier General or Colonel (Promotable). For this group, each command an average number of 1.88 companies for an average of 17.11 months. The median amount of time for company command was nineteen months. In this group, the average number of branch qualifying jobs at the major level was 3.22 for an average of 27.44 months. The median amount of time for branch qualifying jobs was thirty-one months. On average, these officers were promoted to lieutenant colonel with fourteen years and seven months in service (1981) and took command of their battalions at the fifteenth year and fifth month of service (1982).

These three different year groups show a trend for increasing branch qualifying time at the company grade level and the field grade level over the course of the nine years. The year groups also show an increase in the amount of time in service prior to taking command of their battalions. What accounts for this increase? The answer lies in understanding the size and strength of the Army during this period. Year group 1958 was commissioned when the size of the US Army was 899,000.[xciii] By 1968, that end-strength had risen to 1,527,000 soldiers.[xciv] By 1978, that end-strength would subsequently be reduced to 785,000 soldiers.[xcv] Applying that fluctuation in end-strength to the three selected year groups shows that the 1958 year group would serve in an Army that underwent a remarkable expansion by the time that they would serve as battalion

commanders in 1972. This would give rise to the accelerated promotion rate to lieutenant colonel in barely over thirteen years. Contrast that to the 1967 year group, which underwent a severe reduction in the size of the Army by the time that they served as battalion commanders. These shifts in end-strength do more to account for the amount of time that officers serve in branch qualifying positions than any other factor. It only stands to reason that an officer, who has more time to serve prior to assuming battalion command, would also have more time to spend in critical billets prior to battalion command.

The timing of assignments with the expansion or reduction is also critical. Most of the officers in the 1967 year group were in branch qualifying majors positions during the period of the post-Vietnam drawdown. In this case, they could be stabilized in positions as battalion S3s and XOs while the Army was making the transition. It is important to note that this increase in the amount of time served in branch qualifying jobs cannot be attributed to any concerted effort by the US Army to increase the tactical experience of its officers, but instead can be attributed to the size changes of the Army.

In determining if there is a requisite minimum amount of time that officers need in critical billets, one cannot look only at the average amount of time spent in those critical billets. Instead, a look at each individual is more revealing than the averages. For example, the 1958 year group average company command time was 12.38 months. However, the spread ranged from five months of company command time to twenty-four months. Three of these officers never served in branch qualifying positions as a major. Indeed, looking at the careers of all 175 officers in the population shows that four never served as company commanders and eighteen officers never served in branch qualifying

positions as majors. At the same time, there was one officer who had sixty-two months as a company commander, far outpacing his contemporaries in this statistic.

These sharply differing ranges shows the futility of attempting to place a minimum amount of time required for company command or battalion XO and S3. There is no scientific methodology that can be used to determine this requisite amount. Given that fact, is there any reason to even examine this issue? There appears to be three different sets of patterns present in the analysis of officer's careers in the three selected year groups. However, a convergence of the three sets can be found to provide a basis for future career development.

V. Making Sense of the Problem

As has been shown, experience is important in naturalistic decision making environments. Experience provides the foundation for intuition by exposing decision-makers to a range of problems, each problem providing input that can be used in solving the next problem. The more time that a subject has in a naturalistic decision making environment, the more patterns that subject is exposed to. These patterns form the basis for intuition and intuitive thinking that allows subjects to make the right decision in a "time-constrained environment." This linkage between experience and pattern recognition can be translated directly to the US Army and officer development. Experience in tactical decision making comes from a range of sources to include school instruction, but more importantly in operational assignments in the combat battalions. The Army has identified critical jobs as company commanders and battalion S3s and

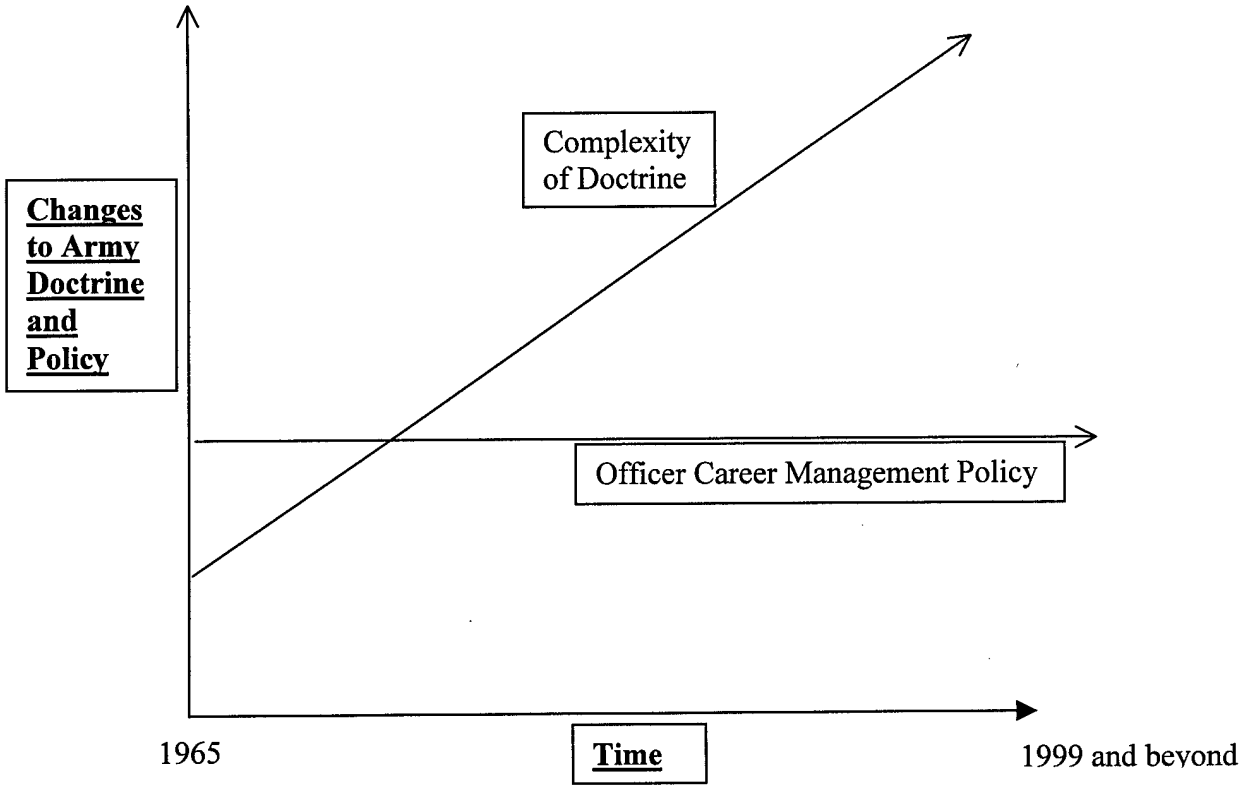
XOs that provide the experience and intuition necessary for tactical decision-making. However, there is more than just the experience in tactical units that provide a decision-maker the information he needs to make the correct decision. An example of this can be seen in the Battle of Dai Yeu.

On October 11, 1967, Lieutenant Colonel Richard E. Cavazos was leading his 1st Battalion, 18th infantry at Dai Yeu in the Republic of Vietnam. A scout dog assigned to the battalion kept barking and alerting the soldiers to the presence of enemy in the jungle. However, the soldiers could not see any enemy in the vicinity. Instead of ignoring the Labrador retriever, Lieutenant Colonel Cavazos ordered his soldiers to assume a defensive position and conduct a reconnaissance by fire, essentially pouring a large volume of fire into the jungle in front of them in order to see if any enemy responded. The enemy did indeed answer with a huge volume of fire indicating a large enemy element in an ambush position, waiting to ambush the Battalion.[xcvi] Cavazos' decision to conduct the recon by fire saved his battalion from virtual annihilation. Cavazos credits his decision as intuition. He intuitively knew that the dog barking was a sign of enemy presence, even though his soldiers could not see or identify any enemy. However, Cavazos believes that this intuition did not result from any experience he had in the Army, but instead was a result of having raised and bird hunted with Labrador Retrievers for most of his life.[xcvii] This ability to recognize the patterns of the dog was a direct result of experience. At the same time, Cavazos' first reaction upon hearing the large volume of fire was to direct the trail company to immediately form a defensive perimeter, and the lead company (the company who had conducted the recon by fire) to "run back into the defensive perimeter as fast as possible."[xcviii] He did this because he could tell that by the

volume of fire that the enemy responded with, the enemy was too large for the lead company to fight. This was a direct result of having the tactical experience that allowed him to recognize the volume of fire pattern as it presented itself in the jungle. In this example, the decisions made were a result of experience gained outside of the Army and experience directly gained as a result of his assignment to tactical jobs, both of which were important in making the right decision in a time constrained environment.

Along with the understanding that the experience provided by jobs, as well as other sources, is important, it is also understood that the difficulty of battalion command has increased immensely since World War II. Today's battalion commander must be able to employ not only his own arm of the service, but also many other arms of the service. The range of weapons systems and the increase in lethality have all added to the complexity of battalion command. As one retired general officer stated, "time and tempo [of the modern battlefield] have increased incredibly."[xcix] Because of this increase in complexity, it only serves to reason that complexity, combined with the role of experience would indicate that more tactical experience is necessary to command a battalion in the present than was necessary in the past.

However, as has been shown, there has not been any corresponding attempt to increase the amount of time spent in tactical assignments gaining important tactical experience. Having reviewed the career development policies of the US Army from 1970 through the present, it becomes apparent that not much has changed to keep pace with the increasing complexity of battalion command. This fact is better illustrated graphically, showing the change of policy and doctrine over time.



The 1998 version (which was hailed as significantly changing the career management and patterns of officers to help prepare them for the demands of the Twenty-first Century) in effect did nothing to increase the tactical experience of those officers. If anything, the new manual actually specifies a decrease in the amount of tactical experience that an officer receives prior to being selected for battalion command. The fact that the career patterns of the Army have not changed is counter-intuitive to the notion of the role of experience and the increase in complexity. Tactical experience is critical to developing commanders that can react properly on the battlefield. Combined with the understanding of how much more complex battalion command has become, this reveals that officer professional development must keep pace with these changes in

complexity. In fact, however, not much has changed in the development patterns of officers.

However, the graph above also represents the third element of the problem, which is the location where the two lines cross. This is the point that would indicate that battalion commanders are no longer receiving enough tactical experience to allow them to command successfully. Again, it can be seen that there is no scientific way of placing an exact number on the amount of time needed in branch qualifying positions prior to battalion command. There are many reasons for this, but the fact remains that there are too many variables that lead to successful command. Some of those variables were highlighted by Lieutenant General (Retired) James F. Hollingsworth and included common sense, personality, leadership ability, physical ability, and a knowledge of basic human needs and reactions.[c]

However, this inability to place an exact amount of time needed in critical jobs does not negate the fact that experience is necessary in pattern recognition, nor does it negate the fact that complexity has increased. As one retired general officer stated, "I can't tell you how much [time in tactical units and branch qualifying jobs] is enough, but I do know that more [time] is better."[ci] The use of arrows to highlight the increase in complexity and doctrine, and the changes in officer personnel management are important in the graphical depiction shown above. The fact of the matter is that complexity has and will continue to increase in the future. The other fact is that if there is no effort to significantly change the officer personnel management system, it will remain "flat-lined" throughout the future, as shown in the graph. When interpreted in this manner, the graph becomes much more useful than merely a discussion of exactly where the two lines

intersect. Intuitively, the graph shows that unless something constructive is done, the two lines will continue to diverge from each other.

VI. Recommendations for Change

Dr. Roger J. Spiller, the Professor of Combined Arms Warfare at the US Army Command and General Staff College, once categorized the present US Army as a "single-shot rifle." By this, he meant that because the Army was reduced in size to ten divisions, once committed to combat, it had to win decisively and early. If the Army did not win any future conflict quickly, then it would have to spend a long time (measured in years instead of months or days) regenerating combat power, size, and strength, in order for it to be recommitted to combat.[cii] This comment puts into perspective the need to change the officer personnel management system in order to achieve the maximum amount of experience for officers commanding combat battalions. There are many different ways that the OPMS system can be revised in order to increase the tactical experience level of future battalion commanders. One of the possible methods is to eliminate the functional areas and conduct the Career Field Designation board at the fifth year in service, in place of having functional area designation at the fifth year. This would allow officers designated to remain in the combat arms to increase the amount of time they would spend in tactical units improving their tactical skills.

At the present time, each officer is designated into a functional area at the fifth year of service. This functional area is usually a technical or specialty area where the officer has previously demonstrated some aptitude, either through his baccalaureate degree or any special schooling. Each functional area is identified with one of the four

career fields (operations, information operations, institutional support, or operational support). The operations career field contains only the functional area of psychological operations and civil affairs, with the remainder of the career field consisting of the basic branches of the Army.[ciii] Once designated, the officer can be assigned to a functional area job after successful completion of company command in his basic branch. The Career Field Designation board does not occur until six months prior to the officer being considered for promotion to major (usually at the ten year point). At this time, the officer who was assigned to his functional area, studying a technical or scientific specialty, not tactically related, can then be designated as an infantryman or armor officer for the remainder of his career. Combining the functional area designation board and the career field designation board at the five year point could eliminate the assignment of potential future battalion commanders away from tactical duties.

There is ample precedence for having officers make such a monumental career decision at the five year point. The functional area designation board provides some of this precedence. Initiated in 1987, the designation of functional areas at the five year point has become standard for the last ten years. A much more convincing argument for having officers begin specialization at the five year point can be seen from the present policy of accessions of Special Forces branch officers. All officers of the branches may volunteer between their fourth and seventh year of service for a branch transfer to the Special Forces branch. Volunteers are then selected by a centralized board to attend the "assessment, selection and training (SFAS) program" to qualify as Special Forces officers. Once qualified, those officers are permanently branch transferred to the Special Forces branch and are managed throughout the remainder of their career as Special

Forces officers.[civ] Combining the functional area designation board with the Career Field Designation board at the fifth year in service would model the methodology that Special Forces branch transfers are patterned after today.

Other precedence can be found from past historical data. The best example of the ability to choose career paths at an early age can be seen by the experience of the German General Staff under Von Motlke. In the 1800's, officers applied for and were accepted to attend the Kriegsakadamie (War Academy) of the German General Staff sometime after their third year of service. All officers prior to their selection had to serve as lieutenants and junior captains with troop units. Once selected, officers would attend a three year program of university type lecture that eventually would qualify the officer as a member of the German General Staff.[cv] This development of staff officers resulted in the successful application of staff procedures that led to the German General Staff being referred to as one of the most feared organizations on the European continent by Germany's enemies.[cvi] Essentially, the German General Staff officer candidate was assessed at the third year of service and then attended an educational program (similar to advanced civil schooling) and finally was utilized in that specialty throughout the remainder of his career. This is precisely the goal of career field designation and could easily follow the German model.

There are other solutions that complement the movement of the Career Field Designation Board to the fifth year of service. One of these solutions is to align the list of duties currently designated as "branch and functional area generalist positions" with certain functional areas. Branch and functional area generalist positions include assignments as aide de camp, Inspector General, US Army Recruiting Command,

Congressional Liaison, Reserve Officer Training Corps, and US Military Academy faculty and staff. Some of these assignments are perfectly suited to be aligned with specific technical functional areas. For example, an officer who is assigned as an instructor in a foreign language at the US Military Academy would fill a requisition for a Foreign Area Officer Functional Area instead of a branch/functional area generalist position. Likewise, service as an instructor in the computer sciences would be coded as an Information Systems Engineering Functional Area duty as opposed to a branch/functional area generalist position.

Other positions that can be aligned with certain functional areas include duties in the US Army Recruiting Command. Recruiter duty is perfectly suited for an officer desiring to specialize in the Human Resource Management Functional Area. Officers in this functional area "support the life cycle functions of structure, acquire, distribute, deploy, sustain, develop, and separate [soldiers and personnel]." Service in the US Army Recruiting Command directly relates to an officer's performance in this functional area.[cvii]

Finally, many of the positions in the Reserve Officer Training Corps can be aligned with functional areas that require advanced degrees. At the present time, officers are assigned to the ROTC departments to fill duties as a ROTC instructor. At the same time, other officers are selected to attend Advanced Civil Schooling to pursue Master's Degrees from civilian universities. Combining the two programs would enable officers to fill critical ROTC billets while at the same time achieving their Master's Degree in support of future assignments in their designated Career Field. A three year assignment

to a ROTC department at a major university would allow the officer ample time to fulfill his own advanced degree requirements.

The ultimate goal behind all of these suggested solutions is to increase the tactical experience level of future infantry and armor battalion commanders. By reducing the requirements to serve in functional area or branch/functional area generalist positions, infantry and armor officers can spend more time serving with soldiers in troop units and acquiring critical tactical skills necessary for leading tactical battalions. The career advice to infantry officers in the current version of *DA Pam 600-3* states that "after command, infantry captains should seek to remain in TOE ("Table of Organization and Equipment" or tactical) units where they can serve as assistant brigade and battalion staff officers . . . or seek experience as second company commanders."[cviii] Contrast this with the current list of assignment available for branch qualified infantry captains, and it shows that none of the assignments are with TOE units.[cix] Moving the Career Field Designation Board and making some of these additional changes would allow some infantry officers to either remain with TOE units after company command or be reassigned back to TOE units after serving some of the remaining branch/functional area generalist positions.

VII. Conclusion

Returning to the opening vignette, it is clear that not much has changed in the career management of officers from even the period that General Otis served in his "branch qualifying" duties. General Otis served as a company commander in the 1950's for nineteen months, meeting the requirements specified in the 1998 version of *DA Pam*

600-3 of eighteen months plus or minus six months. In the early 1960's, General Otis served as a battalion S3 and XO for a total of twelve months, also meeting the requirements specified in the current version of *DA Pam 600-3*. However, much has changed in the manner and duties of a battalion commander since 1968, when General Otis commanded his cavalry squadron during the TET Offensive.

Obviously, the duties of a battalion commander have become much more complex and difficult over the last fifty years, and at the same time officer development has changed little to keep pace with this increasing complexity. Research in decision making indicates that experience provides a set of patterns that decision-makers can use to determine the right decision to make. The more complex the problem, the more experience decision-makers need. The Department of the Army identifies key duties that officers can perform which will significantly contribute to their experiential base. These duties are primarily focused on company command at the Captain level and battalion S3/XO at the Major level. These critical jobs have the label "branch qualifying" and carry an important distinction in the career management of officers.

As with any system that revolves around people, there are always exceptions to the rule. General Otis provides a great example of this. Arguably, regardless of how much time that General Otis had as a company commander and battalion XO and S3, he would have been successful as a battalion commander. This is because he naturally possessed certain traits that lend themselves to success: the other "variables" listed by Lieutenant General (Retired) Hollingsworth. However, relying on the possibility that the Army will have enough officers with natural leadership ability to become battalion commanders is extremely risky. The Army must develop a personnel management

system that can train the average or slightly above average officer to assume the duties of battalion command. Likewise, while the Army may be able to locate those few officers with unlimited natural ability, adding to their experiential base would only improve their performance as battalion commanders. Suffice it to say that no system should rely on luck in order to make it work.

The Officer Personnel Management System XXI instituted in 1998 began the process of recognizing that the Army needs specialists for the future, but it didn't take the needed reforms far enough. The future warfighter of the Army will require much more time with units in order to acquire and maintain critical tactical and leadership skills. Assignment as company commanders and battalion S3's and XO's is critical to that development and should be allotted time that recognizes that criticality. A reassessment of the OPMS system is required and changes are necessary in order to meet the future needs of the Army.

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ENDNOTES

[i] James R. Arnold, *TET Offensive 1968: Turning Point in Vietnam*, Campaign Series 4, (London, England: Reed International Books Limited, 1994), 6-9.
[ii] The most complete account of this battle and LTC Otis' actions on 30 January 1968 can be seen in the Hall of Honor on the 2nd Floor of Bell Hall at the Command and General Staff College, Fort Leavenworth, Kansas. The Combat Studies Institute of the Command and Staff College assembled this display along with other displays from the various wars fought by the United States.
[iii] General (Retired) Glenn K. Otis, interview by author, Fort Leavenworth, Kansas, August 23, 1999. GEN Otis related to the author that he commanded his first company for seven months while still in the grade of 2nd Lieutenant, less than a year after graduating from West Point. His command was cut short by an overseas deployment. His second company was a battalion Headquarters company, which he commanded for twelve months. GEN (Ret) Otis also commanded a mechanized battalion cavalry platoon for twelve months. While technically considered a platoon, the platoon had more vehicles in it than most of the companies in the battalion. During his twelve months in Korea with the 1st Squadron, 9th Cavalry, he served as both the S3 and the Executive Officer. During the twelve months there were periods where he occupied both jobs at the same time.
[iv] Gary Klein, *Source of Power* (Cambridge, Massachusetts: MIT Press , 1998), 4.
[v] Ibid. 31-33.
[vi] Peter M. Senge, *The Fifth Discipline: The Art and Practice of a Learning Organization* (New York: Currency Doubleday Press), 94.
[vii] Ibid., 94.
[viii] Carl Von Clausewitz, *On War*, Edited and Translated by Michael Howard and Peter Paret (Princeton, New Jersey: Princeton University Press, 1989), 109.
[ix] Ibid., 117.
[x] Antoine H. Jomini, *The Art of War*, Edited by Brig. Gen. H. D. Hittle, *Roots of Strategy, Book Two* (Mechanicsburg, Pennsylvania: Stackpole Press, 1987), 537.
[xi] John A. English, *On Infantry* (New York, New York: Praeger Press, 1984), 143.
[xii] Gregory D. Reilly, "How Tactical Experience Affects Confidence About Combat Decision Making", (Thesis for MMAS, Command and General Staff College, Fort Leavenworth, Kansas, 1997), 87.
[xiii] Department of the Army, *DA PAM 600-3: Commissioned Officer Development and Career Management* (Washington D. C.: US Government Printing Office, 1 October 1998), 7. This manual is considered to be the guidepost to an Army officer's career. It not only lays out Army policy concerning an Officer's career path, but also provides guidance and counsel to all officers in the Army.
[xiv] Ibid., 7.
[xv] Ibid., 34.
[xvi] Ibid., 35.
[xvii] Ibid., 8.
[xviii] Ibid., 35.
[xix] Ibid., 40-43.

[xx] Ibid., 35.
[xxi] Reilly, 42-45.
[xxii] *Webster's Ninth New Collegiate Dictionary* edited by Frederick C. Mish, (Springfield, Massachusetts: Merriam-Webster Incorporated, 1986), 269. This definition is actually a compilation of the definitions of both complex and complexity. The actual definition of complexity is "the quality or state of being complex."
[xxiii] M. Mitchell Waldrop, *Complexity: The Emerging Science at the Edge of Order and Chaos* (New York, New York: Simon and Schuster, 1992), 86.
[xxiv] Martin Van Crevald, *Command in War* (Cambridge, Massachusetts: Harvard University Press, 1985), 2.
[xxv] Shimon Naveh, *In Pursuit of Military Excellence, The Evolution of Operational Theory* (Portland, Oregon: Frank Cass Publishers, 1997), 33.
[xxvi] Van Crevald, 1-2.
[xxvii] Richard E. Christ, *New Research on Span of Command and Control: Implications for Designing Army Organizations* (Alexandria, Virginia: US Army Research Institute for the Behavioral and Social Sciences, 1998), 14.
[xxviii] Martin Blumenson, *The Patton Papers 1885-1940* (Boston, Massachusetts: Houghton Mifflin Company, 1972), 1029.
[xxix] War Department, *FM 7-20: The Infantry Battalion* (Washington, D. C.: US Government Printing Office, 1 October 1940), 276-277. Subsequent editions of this manual were published on 28 September 1942 and 1 October 1944.
[xxx] Ibid., 18.
[xxxi] Department of the Army, *FM 7-20: The Infantry Battalion* (Washington, D. C.: US Government Printing Office, March 1950), 253.
[xxxii] A. J. Bacevich, *The Pentomic Era* (Washington D. C.: National Defense University Press, 1986), 5.
[xxxiii] Department of the Army, *FM 7-20: Infantry, Airborne Infantry, and Mechanized Infantry Battalions* (Washington, D.C.: US Government Printing Office, 16 January 1962), 5.
[xxxiv] Department of the Army, *FM 7-20: Infantry, Airborne Infantry, and Mechanized Infantry Battalions* (Washington D. C.: US Government Printing Office, May 1965), 25.
[xxxv] Lawrence A. Yates, *Power Pack: US Intervention in the Dominican Republic, 1965-1966* (Fort Leavenworth, Kansas: Combat Studies Institute, US Army Command and General Staff College, July 1988), 1.
[xxxvi] Ibid., 73.
[xxxvii] Department of the Army, *FM 7-20: The Infantry Battalions* (Washington, D. C.: US Government Printing Office, December 1969), 1-1.
[xxxviii] Ibid., 7-43 – 7-48.
[xxxix] Paul H. Herbert, *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations* (Fort Leavenworth, Kansas: Combat Studies Institute, US Army Command and General Staff College, July 1988), 95.
[xl] Department of the Army, *FM 7-20: Infantry Battalion (Infantry, Airborne, Air Assault, Ranger)* (Washington D. C.: US Government Printing Office, 3 April 1978), 2-1 – 2-42.
[xli] Ibid., 4-23.
[xlii] Naveh, 304.

[xliii] Department of the Army, *FM 7-20: Infantry Battalion (Infantry, Airborne, Air Assault,Ranger)* (Washington D. C.: US Government Printing Office, 28 December 1984), 1-2.
[xliv] Ibid., 3-10.
[xlv] Department of the Army, *FM 7-20: The Infantry Battalions* (Washington, D. C.: US Government Printing Office, 6 April 1992), appendix B.
[xlvi] Thomas Donnelly, Margaret Roth, and Caleb Baker, *Operation Just Cause: The Storming of Panama* (New York, New York: Lexington Books, 1991), 409.
[xlvii] Joseph A. Moore, *Gaining Order from Chaos: Will Automation Do It?*, (a monograph submitted for the School of Advanced Military Studies, US Army Command and General Staff College, Fort Leavenworth, Kansas, 4 February 1993), 12.
[xlviii] War Department, *FM 17-33: The Armored Battalion, Light and Medium* (Washington D. C.: US Government Printing Office, 18 September 1942), 14. A subsequent edition of this manual was published on 19 December 1944.
[xlix] War Department, *FM 17-33: The Tank Battalion* (Washington D. C.: US Government Printing Office, September 1949), 5.
[l] Department of the Army, *FM 17-15: Tank Units: Platoon, Company, and Battalion* (Washington D. C.: US Government Printing Office, 4 December 1961), 8.
[li] Ibid., 4.
[lii] Department of the Army, *FM 17-15: Tank Units: Platoon, Company, and Battalion* (Reprinted with changes 1 and 2) (Washington, D. C.: US Government Printing Office, 25 March 1966), 4, 12.
[liii] Ibid., 23.
[liv] Department of the Army, *FM 71-2: The Tank and Mechanized Infantry Battalion Task Force* (Washington, D. C.: US Government Printing Office, 30 June 1977), 3-2.
[lv] Ibid., 3-2 – 3-7.
[lvi] Ibid., 3-2.
[lvii] Department of the Army, *FM 71-2: The Tank and Mechanized Infantry Battalion Task Force* (Washington, D. C.: US Government Printing Office, September 1988), 3-2.
[lviii] Ibid., appendix B and appendix D.
[lix] Department of the Army, *FM 71-2: The Tank and Mechanized Infantry Battalion, Change 1* (Washington, D. C.: US Government Printing Office, 17 August 1994), appendix a.
[lx] Ibid., 1-6.
[lxi] Van Crevald, 265-267.
[lxii] Christ, 31-32.
[lxiii] Ibid., 31-32.
[lxiv] Van Crevald, 265.
[lxv] Department of the Army, *DA PAM 600-3: Commissioned Officer Development and Career Management* (Washington, D.C.: US Government Printing Office, 1 October 1998), 1.
[lxvi] Ibid., 2.
[lxvii] Ibid., 6.
[lxviii] Ibid., 6.

[lxix] Department of the Army, *DA Pam 600-3: Career Planning for Army Commissioned Officers* (Washington, D.C.: US Government Printing Office, 1 August 1970), 1-1.
[lxx] Ibid., 2-1.
[lxxi] Ibid., 2-1.
[lxxii] Ibid., 2-2.
[lxxiii] Ibid., 7-1.
[lxxiv] Ibid., 7-11.
[lxxv] Ibid., 7-8 – 7-9. It is important to note that neither Special Forces nor Aviation was considered a branch until the 1987 version of DA Pam 600-3 specified the creation of these two branches. Both of these areas were considered specialties that officers could transfer into and out of throughout their career. The Special Forces speciality was considered important development for infantry officers in that many of the same skills that applied to infantry officers also applied to Special Forces officers. The fact that infantry officers can now no longer do an assignment in Special Forces after their company command takes away an essential component of tactical training that infantry officers could apply to their own infantry branch. The creation of Special Forces and Aviation as a branch further dilutes the tactical experience of the infantry officer.
[lxxvi] Ibid., 5-2.
[lxxvii] Department of the Army, *DA Pam 600-3: Officer Professional Development and Utilization* (Washington, D.C.: US Government Printing Office, 1 March 1974), 9-1.
[lxxviii] Ibid., 9-2.
[lxxix] Ibid., Figure 9-1.
[lxxx] Ibid., Figure 9-1.
[lxxxi] Department of the Army, *DA Pam 600-3: Officer Professional Development and Utilization* (Washington, D.C.: US Government Printing Office, 1 September 1977), figure 9-1.
[lxxxii] Department of the Army, *DA Pam 600-3: Officer Professional Development and Utilization*, Update 3 (Washington, D.C.: US Government Printing Office, 30 June 1985), 30.
[lxxxiii] Ibid., 28.
[lxxxiv] Ibid., 28.
[lxxxv] Department of the Army, *DA Pam 600-3: Officer Professional Development and Utilization*, Update 11 (Washington, D.C.: US Government Printing Office, 1 October 1987), figure 12-1.
[lxxxvi] *DA Pam 600-3*, 1998 version, 41.
[lxxxvii] Ibid., 42.
[lxxxviii] Branch Qualified Captain's Assignment Officer, "Chief of Staff of the Army Second-Command Policy," *Armor Branch Newsletter*, available from the Armor Branch homepage, http://www-perscom.Army.mil/Oparmor/arcpt.htm, accessed on 7 October 1999, 5.
[lxxxix] Lieutenant Colonel's Assignment Officer, "Demographics for the FY00 Command Board", *Armor Branch Newsletter*, available from the Armor Branch homepage, http://www-perscom.Army.mil/Oparmor/arcpt.htm, accessed on 7 October 1999, 4.
[xc] DA Pam 600-33, *Resumes of General Officers* (Washington D. C.: US Government Printing Office, 1 March 1991). This manual lists all of the duty assignments, by date

assumed for every general officer and promotable colonel on active duty in 1991. The book also lists the promotion dates and the commissioning dates for all of the general officers. From this information, the author made detailed lists of which general officer to select for the study (based on what type of battalion command that the officer had), how much time (by number of months) for company command, battalion XO, S3 or Brigade XO and S3, how much time the officer had in non-tactical environments (as defined by time spent outside of a division and not in a tactical school environment), when the general officer was selected for lieutenant colonel (by number of years and months) and when that general officer took command of his battalion (by number of years and months). This was then collated in several forms and analyzed by the author to determine the necessary information for the monograph.

[xci] Ibid., Each selected general officer had two pages for his career, and none of the pages were numbered. The information can be found spread throughout the book.

[xcii] Ibid., various pages.

[xciii] Bacevich, 19.

[xciv] Lewis Sorley, *Thunderbolt: General Creighton Abrams and the Army of His Times* (New York, New York: Simon and Schuster, 1992), 186.

[xcv] Ibid., 365.

[xcvi] Brigadier General James E. Shelton, "The Battle of Ong Thanh", *Vietnam Magazine*, August 1994, 31.

[xcvii] General (Retired) Richard E. Cavazos, interview by author, Fort Leavenworth, Kansas, 29 October 1999. General Cavazos graduated from Texas Tech University and served as a company commander in the Korean War and later served as a battalion commander in the 1st Infantry Division in Vietnam, at the same time that LTG Hollingsworth was the Assistant Division Commander. General Cavazos was awarded the Distinquished Service Cross twice for valor in combat and retired as the Commanding General of Forces Command at Fort McPherson, Georgia

[xcviii] Ibid.

[xcix] Ibid.

[c] Lieutenant General (Retired) James F. Hollingsworth, interview by author, San Antonio, Texas, 24 October 1999. LTG Hollingsworth graduated from Texas A&M University in 1940 and was commissioned as an infantry officer. During World War II, he served as a battalion commander in the 67th armored Regiment. He later served two tours in Vietnam, to include a tour as the Assistant Division Commander for the 1st infantry Division. He was awarded the Distinguished Service Cross three times for valor in combat.

[ci] General (Retired) Richard Cavazos, interview by author, Fort Leavenworth, Kansas, 28 October 1999.

[cii] Dr. Roger J. Spiller, comments made during a lecture conducted for Seminar 2, School of Advanced Military Studies, 27 August 1999. Dr Spiller's comments came after a lengthy discussion of the amount of time it takes to train tank and Bradley Fighting Vehicle crewmen. The theme of the discussion was that it takes at least six months to turn the average civilian into a proficient tank crewmen and then another six months to create a viable crew out of four such civilians. The result of this, is if the US Army loses many tank and BFV crewmen during the next war, then it will have to spend at least a

year retraining tank gunnery and tank crews to replenish the Army. From this conversation came the phrase "single-shot rifle."

[ciii] *DA Pam 600-3*, 1 October 1998, 7.

[civ] Ibid., 76.

[cv] Colonel Baron Stoffel, *Military Reports: Addressed to the French War Minister* (London, England: Superintendent of her Majesty's Stationary Office, 1872), 50-53. It should be noted, that once an officer is selected to the German General Staff, he is still required to perform duties as a commander at every level prior to promotion to his next rank. This is quite like the need for battalion S3s to serve as staff officers prior to commanding battalions. In effect, the use of the Career Field Designation boards at an earlier time would allow specialists to assist the main work of the General Staff Officers such as the G3 and G2. Of these two officers, each would come from the operations career field and be fully developed in his basic branch for the business of warfighting.

[cvi] Oberst i.G. Christian O.E. Millotat, *Understanding the Prussian-German General Staff System* (Carlisle, Pennsylvania: Strategic Studies Institute, US Army War College, 20 March 1992), 5.

[cvii] DA Pam 600-3, 1 October 1998, 181.

[cviii] Ibid., 35.

[cix] Branch Qualified Captain's Assignment Officer, "BQ CPT's Positions Available", Infantry Branch Newsletter, available from the Infantry Branch Homepage, Http://www-perscom.Army.mil,/Opinf/incptjob.htm, accessed on 11 October 1999, 1.